

IBC. During the mid to late 1990s, IBC featured the largest number of unpaid claims to Philadelphia providers in terms of dollar volume among all insurers. In sum, AHERF faced a situation in the city of Philadelphia where payers began to slow down the payment of claims and increase their rate of claims denials - - both of which hurt the cash flow of hospital systems like AHERF and turned adequate reimbursement rates into inadequate rates.

Hospital payment to cost ratios for privately-insured patients also began to fall by the mid-1990s through the end of the decade. These decreases were more pronounced in Philadelphia than in other metropolitan areas. As noted above, IBC dominated this market.

There is another peculiarity about the Philadelphia hospital market. Since 1977 (when Philadelphia General Hospital closed its doors), Philadelphia has had no public hospital that takes responsibility for treating the poor. Indeed, Philadelphia is the only major city without such a municipal facility. The consequence of this is that private, nonprofit community hospitals must shoulder the burden of caring for the inpatient needs of the indigent. They are also likely to have more Medicaid patients (which the data show is true in Philadelphia).

Philadelphia County vs. Suburban Counties. Compared to the suburban counties, Philadelphia County had a higher percentage of large hospitals (300+ beds), teaching hospitals (members of COTH), and hospitals with residency programs. In the early 1990s, Philadelphia County had a higher percentage of hospitals with cardiac catheterization labs; after 1993, however, the suburban counties caught up to and surpassed Philadelphia County. A similar pattern occurred after the sunset of the Certificate of Need (CON) program in 1996: the suburban hospitals catch up to and surpass the city hospitals with regard to the percentage with angioplasty capability. This suggests that during the 1990s the suburban hospitals increasingly adopted higher-technology cardiac services to compete with the city hospitals.

An Environment of Bankruptcy

Another peculiarity of the Philadelphia hospital market has been the incidence of bankruptcy over time; another, the reluctance to let hospitals close. Hospital bankruptcies over a six-year period between 1988-1993 are itemized below:

<u>Hospital/System</u>	<u>Year</u>
St. Mary's Hospital	1988
University Medical Center	1988
St. Joseph's Hospital	1988
Metropolitan Hospital System	1989
Central Division	
Springfield Division	
Parkview Division	
Franklin Square Hospital	1990
Girard Medical Center	1990
Sacred Heart Medical Center	1992
Neumann Medical Center	1993
Cooper Hospital	1993

Is this concentration of bankruptcies observed in Philadelphia unusual? An analysis of reports of hospital bankruptcies in the hospital trade literature since 1980 reveals that 12.3 % of all bankruptcies occurred in Philadelphia, while the metropolitan area contains only 1-2% of the nation's hospitals. This is the single largest concentration of bankruptcies in U.S. cities. The emergence of IDSs during the 1990s might well have temporarily delayed several more filings, as illustrated when all nine of AHERF's Philadelphia hospitals filed in 1998.

Pattern of Repeat Bankruptcies. What are the possible explanations for so many bankruptcies in Philadelphia? One thing to notice is that the same financially distressed hospitals filed for bankruptcy at multiple points in time during the last twenty years of the twentieth century. Sometimes the struggling hospitals were rescued by private individuals or organizations; at other times, they were rescued through public policy initiatives to ensure access to care. Regardless of who rides to the rescue, the repetition of bankruptcy filings suggests that bankruptcy is a characteristic of chronically-ill facilities.

In the private sector, for example, the Central Division of Metropolitan Hospitals went bankrupt in 1989, was acquired by new owners and renamed Franklin Square Hospital, faced payroll and finance problems by 1991, was subsequently purchased by the Cooper Health System in New Jersey and renamed as Cooper Hospital-Center City, before finally being closed down in 1993. In the public sector, Girard Medical Center and St. Joseph's Hospital defaulted on their bond payments in both 1979 and 1990, filed for bankruptcy in 1990, and were subsequently reorganized with federal financing as the North Philadelphia Health System.

This pattern of Philadelphia hospital bankruptcies would continue a few years later with AHERF's Philadelphia holdings. This time, a new political side of bankruptcy was revealed. During the Allegheny bankruptcy, the City of Philadelphia was faced with the prospect of several local hospitals closing if a buyer was not located. Allegheny was reported to be the city's largest employer. Not surprisingly, state and local government officials stepped in to ensure jobs were not lost. The Mayor of Philadelphia (who lived in MCP's neighborhood) and Governor of Pennsylvania worked together to develop a package that would attract Tenet Healthcare to purchase the hospital assets and Drexel University to manage the combined Hahnemann/Medical College of Pennsylvania University. The Pennsylvania Governor at the time declared that job creation was the essence of his administration. It is thus not surprising that public officials secured Tenet's commitment not to shutter any of the hospitals it acquired, at least initially. Tenet then, however, experienced its own problems and by 2004 (six years after the AHERF bankruptcy), Tenet had decided to close two of Allegheny's hospitals (City Avenue and Parkview), sell another (Elkins Park), and was trying to close a fourth (MCP Hospital). Again, the current Governor (and former Mayor of Philadelphia) intervened to broker a deal that would keep the hospital open by allowing the medical staff to purchase it from Tenet for a nominal fee.

Intervention of Local Politics. Why, then, were there so many bankruptcies in Philadelphia? As suggested above, local politics may have intervened to use bankruptcy proceedings to keep distressed hospitals open. These and other actions bespeak a public interest in maintaining hospital jobs in a market that is heavily dependent on healthcare employment and the healthcare sector for whatever job creation

exists. In Philadelphia, for example, healthcare accounted for 13% of private sector jobs. Between 1982 and 1995, the sector added 82,000 jobs -- a period during which the regional employment base shrank. Moreover, the city possessed five AMCs, and boasted that roughly 20-25% of the nation's physicians received some portion of their medical training in the city. The experience of the last twenty years suggests that local policy makers often intervene in the local hospital market to ensure the survival of distressed institutions. This occurs despite downward trends in local hospital utilization and occupancy rates, and calls for downsizing of local capacity. Such actions may only serve to delay the inevitable closure of these institutions that repeatedly file for bankruptcy. Indeed, hospital closure may be viewed as the market's way of "getting rid of the deadwood" -- a process with which politics interferes. Political interference to prop up troubled hospitals may actually create a moral hazard problem whereby hospital executives engage in more risky behavior and strategies if they expect a bailout. Hospital closure may only come about through the managerial actions of investor-owned systems that have a bent towards rationalizing capacity within their system and are accountable to shareholders.

Supply of Bonds Issued. Another important reason why there are so many bankruptcies in Philadelphia is because so many hospital bonds are issued there. Pennsylvania is one of the few states without a statewide issuing authority that can act as a gatekeeper telling hospitals how much they can borrow. Instead, there can be multiple issuers of long-term debt located in each county, in addition to a state-level authority that can be used by institutions of higher education (including teaching hospitals). This decentralized system of bond issuance increases access to debt, the potential supply of hospital bonds, and thus the potential candidates for bankruptcy. A greater supply of bonds leads to a high number of bankruptcies for the following, simple reason: bankruptcy protects the bondholders. In instances where hospitals suffer severe financial distress, their assets do not end up being worth what the bonds are. If you close the hospital, there is no way to discharge the bonds.

A comparison of Pennsylvania with New Jersey is instructive here. New Jersey has a more tightly regulated system for issuing hospital bonds through the New Jersey Hospital Authority. In the past, hospitals have closed in New Jersey when they didn't

have debt or debt backed by the Authority; that is, such closings occur when there are not a lot of bonds involved. In Pennsylvania, by contrast, the local Authority has been heavily involved in issuing bonds; indeed, between 1974 and 1989, over 10% (\$235 million) of the \$2 billion of bonds issued by the Authority have been to hospitals in financial trouble.

Hospital Demand for Bonds.

Coupled with the potential greater availability of bonds was a situation of greater demand for them in Philadelphia. The city was in decline during the 1970s due to the out-migration of its population; it also faced a rising level of poverty and economic decline. Hospital bond authorities served as a conduit of money and a friendly agent to spur the city's economic development. The bond authorities exerted a big economic impact on the city and its building trades via hospital construction projects, which increased the city's wage taxes. Hospitals themselves also demanded bonds for several reasons:

- to replace aging plant in an old city with old hospitals. The average age of the facilities replaced with the help of the Philadelphia-based Hospitals and Higher Education Facilities Authority through 1979 were 80 years old.
- to counter deterioration in the facilities and thus in Philadelphia's leadership role in academic medicine - - especially for AMCs like Hahnemann and Jefferson.
- to modernize in order to comply with requirements for accreditation by the Joint Commission. Officials at the Delaware Valley Hospital Council estimated that more than half of the state's hospital beds required replacement or modernization.
- to access capital in an era of cost containment (e.g., e.g., wage and price controls enacted in the early 1970s)
- to replace the decline in philanthropic giving following the passage of Medicare in 1965. Philanthropy as a source of financing dropped from 21% in 1968 to only 4% by 1981.
- to increase the operating efficiency of hospital facilities in order to better compete
- to take advantage of Medicare's cost-plus reimbursement to hospitals
- to provide an alternative source of financing once the Hill-Burton program was set to expire in June 1973.

The decentralized supply and strong demand for bonds by hospitals resulted in a massive wave of bond financing. The local authority in Philadelphia County alone issued

\$4 billion in debt between 1974 and 1998. This placed it in the 99th percentile of the approximately 20,000 municipal issuers nationwide. The authority claims it has frequently led the U.S. in bond volume. Other bond authorities in the suburban counties also issued a lot of long-term debt.

Surge in Bonds Issued in 1990s. Records from the bond authorities reveal a spike in bond issuances in the early 1990s. One possible reason is that due to the over-bedded hospital market, hospitals competed for occupancy by renovating and expanding. Another explanation is the climate of favorable (falling) interest rates and hospital moves to refinance debt. A third reason is that hospitals could use bonds as a means to finance their mergers and system-building activity: hospitals would acquire and commingle the debt from the facilities to be joined, reissue the debt under a new name and save money under a lower interest rate, and defease the old debt. AHERF did this in June 1996. Related to this was the call for AMCs to reinvent themselves as IDSs (by acquiring community hospitals and physicians). A fourth reason is that the investments made by hospitals in the 1970s with the earlier bonds were now fifteen years old in the early 1990s, leading to a natural capital cycle.

Hospital Financial Performance and Trends. Another reason for so many bankruptcies may be the assumption of a high volume of debt followed by a period of reduced reimbursements (and thus revenues to service the debt). Indeed, the Pennsylvania Economy League argued that the rising debt obligations served as a constraint on hospital competitiveness and efforts to make needed investments internally. Evidence from Moody's Investors Service reveals that by the mid-1990s hospitals in Pennsylvania had much lower ratings on their debt compared to other states. In 1992, 5% of Pennsylvania hospitals had debt rated below investment grade (Ba1 and below); by 1995, the percentage nearly quadrupled to 18%. Nationally, the median was only 8%. The Authority suggests the answer lies in the declining pattern of admissions and inpatient days that had been underway since the early 1980s. The Authority also makes note of the local nursing shortage and rising malpractice insurance rates, both of which pushed local hospital costs higher. Finally, the Authority mentions a large drop in hospital revenues in FY 1987, and a concomitant rise in the number of Philadelphia hospitals with operating losses in FY 1987 and 1988. Some of these losses are evident

among the hospitals and systems that AHERF acquired (see previous section). What occasioned these losses? Falling inpatient volume may be one reason, but it is clearly an insufficient explanation. The forces at work here and in other times in the Philadelphia hospital market must also be traced to "timing shocks" -- timed events in the regulatory and competitive environments that shocked the local hospital industry. The next section explores what shocks occurred and how they impacted hospitals.

6. Timing Shocks in the Healthcare Industry, Commonwealth of Pennsylvania, and Philadelphia Market

The 1980s and 1990s were punctuated by a number of shocks to the healthcare system -- at the federal, state and local levels. Some of these shocks involved regulatory changes; some dealt with changes in reimbursement; others dealt with changes in the local competitive market. The effect of these shocks was to increase the competitive pressures on hospitals and reduce their level of public and private reimbursement (revenue) to deal with these pressures. In AHERF's case, the result was a near "perfect storm" that undermined the financial position of its hospitals. Coupled with AHERF's over-extended strategy of diversification, the changes crippled the system's ability to finance not only its strategy of expansion but also its ongoing operations. The result was bankruptcy.

Changes in Federal Medicare Program

The first set of changes to affect the hospital industry was the Prospective Payment System (PPS), introduced into the Medicare program in 1983. PPS changed hospital reimbursement from a retrospective, cost-based reimbursement to a prospective, budgeted reimbursement using diagnosis related groups (DRGs). The DRG payments started from a hospital-specific base and then transitioned to a blending of hospital-specific and federal rates, culminating in a fully federal set of payments by 1988. The result was a decline in how much hospitals were paid. The PPS also strengthened an ongoing trend among providers to shift business from inpatient to outpatient settings, where patient care was still reimbursed on a cost basis. This had the dual effect of

contributing to a decline in the hospital's inpatient volume and to an increase in competition among hospitals for the declining number of inpatients.

PPS also introduced several new factors into hospital reimbursement. Two such factors were the "market basket index" (MBI) and the "PPS update". The former was an estimate of the rising cost of inputs needed to produce hospital care; the latter was how much of that inflation PPS would cover through payment updates. For FY 1984 and 1985, the two figures were fairly close. Starting in FY 1986 and extending through 1989, however, there were huge differences on the order of 2.1 to 3.8 percent. That is, if the hospital market basket for inputs was forecast to rise 3.7 to 5.4 percent for the year, hospitals would receive only 0.5 to 3.3 percent. This was the start of the falling reimbursements in Philadelphia hospitals during the late 1980s, which had high Medicare patient loads. During the 1990-1993 period, the gap between the MBI and PPS update would shrink, only to widen again between 1994-1998.

PPS also negatively impacted teaching hospitals - - also quite prevalent in Philadelphia. Between 1984-1986, the Medicare program adjusted operating payments to teaching hospitals with an additional payment for indirect medical education expenses ("IME Adjustment"). The additional payment is calculated as a percentage adjustment for every 0.10 increment in the IRB teaching intensity ratio (ratio of interns and residents per bed).⁴ In 1984-1986, the multiplier was 11.59%. Between 1986 and 1988, the multiplier was reduced to 8.1%, and then reduced again to 7.7% for the years 1989-1997. AMCs, hospitals that had a large number of residents, and hospitals that added large numbers of residents (e.g., by growing their teaching programs) were especially hurt by these cuts. This included AHERF, which had acquired teaching hospitals in the Philadelphia market.

PPS also began to change the way hospitals were reimbursed for their capital spending starting in 1992. Once encouraged to expand their plant and technological base, hospitals saw PPS transition capital payments away from hospital-specific spending to federal standardized capital payment rates. In 1992, capital payments were a

⁴ As an illustration, when the IME adjustment is 7.7%, the actual adjustment for each teaching hospital is given by the formula: $1.89 * [((1+IRB)^{405}) - 1]$. Here, IRB is the ratio of interns and residents per bed.

combination of 90% hospital-specific and 10% federal rates; by 1996, capital payments were 50% hospital-specific and 50% federal; by 1998, the payments were 30% hospital-specific and 70% federal. Hospitals that undertook expensive capital projects thinking that the Federal Government might pay most of their costs found that the Federal rates were being gradually reduced over time.

During the early 1990s, the Medicare program also encouraged beneficiaries to enroll in HMOs rather than the traditional Medicare program (which paid providers on a fee-for-service basis). In Philadelphia, Medicare managed care enrollment grew quickly from 8% in 1994 to 25 to 30% by 1996-1997 (compared to 10 to 15% nationwide). The result was reduced payment for hospitals and physicians. Medicare paid the HMOs 95% of its adjusted average cost per capita (AAPCC) in the area. The HMOs then stripped out from its payments to hospitals (and kept for themselves) two components that hospitals had previously received under the older fee-for-service program: the teaching component and the disproportionate share hospital (DSH) component. What was once a financially healthy business for hospitals became a marginal business. This was particularly true in Philadelphia where there was a higher percentage of elderly in the population, more elderly enrolled in Medicare HMOs, and a high AAPCC rate due to the confluence of all the AMCs in town.

Finally, in August 1997, the Federal Government passed the Balanced Budget Act (BBA), which reduced Medicare payments to providers nationwide by \$115 billion. Some of these reductions were further reductions in the PPS update, IME adjustments to teaching hospitals, and DSH payments. In addition to substantially reducing AHERF's receipts, the BBA also exerted two other impacts that hurt AHERF. First, the cuts imposed killed off any possibility that hospitals could continue funding their disease management programs -- the programs they had created to try to manage sick enrollees in their capitated plans. Second, BBA killed funding for the long-term care sector. This prevented AHERF from consummating a deal that would have sold its failing Mt. Sinai Hospital to a long-term care company.

Changes in the State Medicaid Program

In the early 1980s, the Commonwealth of Pennsylvania faced severe budget problems stemming from its outlays on the Medicaid program. In 1984, the legislature tasked the Department of Public Welfare (DPW) to do several things, including the development of a demonstration project for capitated Medicaid managed care in Philadelphia, and the transition from a cost-based system of payment to a PPS-type system of payment.

The demonstration project culminated in the "Health Pass" program, initially administered by Penn Health during 1987-1989. Although fiscally sound itself, Penn Health was a subsidiary of MaxiCare, a national HMO which filed for bankruptcy in 1988 (and sucked some of the money out of Philadelphia, and left hospitals with a lot of receivables, estimated by some at \$20 million). Health Pass was a managed care pilot for 70,000 to 90,000 low-income residents of Philadelphia. During the 1990s, several more voluntary Medicaid HMOs in the private sector formed (Greater Atlantic Health Service, Mercy, Health Partners, Oak Tree) covering another 200,000 residents. The plans were paid 94 to 95% of the old fee-for-service rates, and the plans had the latitude to pay hospitals higher rates but offset this with decreased utilization.

Health Pass was considered a success in Harrisburg, since most of the plans were solvent and the poor got improved access to outpatient care. In 1996 Pennsylvania decided to roll it out on a broader scale. It transitioned roughly 80% of the Medicaid population (460,000 out of 550,000 enrollees) in Philadelphia to HMOs as part of the "Health Choices" program in 1996-1997. This caused the proportion of the Medicaid population in HMOs in southeastern Pennsylvania to grow from 63% to 91% between 1996-1998. A Pew Charitable Trust Evaluation of Health Choices found that the DPW rates paid to the HMOs were too low, and the HMO rates subsequently paid to providers were even lower and slower. One reason for the low DPW rates may have been criticism that DPW had allowed managed care firms to post high profits in the past on state contracts for Medicaid enrollees. Hospitals also did not receive any risk-adjusted payments for special patient populations. Finally, Health Choices funneled all Medicaid HMO enrollees through four plans with which providers now had to contract. Such channeling gave the plans contracting leverage over the providers, who needed the

Medicaid business. The effect on hospital providers like AHERF was even lower reimbursement than they had historically received for treating Medicaid patients, which constituted a relatively large share of their business (compared to other cities) given the lack of a public hospital in Philadelphia. With their Medicaid business transitioned from fee-for-service to managed care, providers were hit with lower reimbursements on a large volume of their patients.

In developing a PPS-type system for Medicaid, the DPW established "base rates" for hospitals pegged to their 1986-87 allowable Medicaid costs. As in Medicare, these rates were supposed to be increased using annual updates to reflect inflation. Two problems immediately surfaced here. First, the hospital base rates were never recalibrated to reflect changes in technology, pharmacy costs, employee skill mix and wages, and services offered. Second, the annual updates had historically been very low. Between July 1991 and December 2000, the cumulative DPW update was 24.19%, even less than the 27.58% update in the PPS hospital MBI. During the critical years of the mid-1990s (1994-1997), the cumulative DPW update was only 0.56, compared to the PPS update of 8.50.

Overall, the State Medicaid program provided the lowest reimbursement to Pennsylvania hospitals compared to the already low commercial payers and the Medicare program. During the 1990s, payment-to-cost ratios (PCRs) for the Medicaid program fell from a high of 85% in 1992 to a low of 77% in 1998. These rates made Pennsylvania the 9th lowest-paying Medicaid program among the fifty states, where the median PCR is closer to 96%. The low Medicaid rate is contrasted with the Medicare PCR, which has hovered between 96 to 101% over most of the decade. The PCR for commercial payers, which historically had been the most generous payer, significantly dropped from 125% in 1992 to 103% by 1998. Medicaid changes were particularly felt by Philadelphia hospitals, including AHERF, since they treated roughly 60% of the Commonwealth's entire medical assistance population.

Another significant event in the history of Pennsylvania's Medicaid program occurred in 1996 when the Commonwealth was again facing severe budget problems. First, the Commonwealth reduced the payment update by 5%. Second, in a budget-cutting move, the new Governor Tom Ridge introduced welfare reform that affected the

general assistance population (a large percentage of which is between 18-65 years old, suffers from alcohol/drug/psychiatric problems, and is heavily concentrated in Philadelphia). Welfare reform reduced the number of eligibles from the general assistance rolls by about 225,000, which effectively transitioned Medicaid patients into completely uninsured patients seeking care at hospitals. Because AHERF had a disproportionate share of these patients, it felt the changes disproportionately. Of the \$175 million cuts in Medicaid spending in the Commonwealth, Philadelphia hospitals reportedly lost \$75 million of that. To make up for this, the Commonwealth developed a marginal payment stream called the "community access fund" that targeted payments to providers seeing a disproportionate share of these general assistance population patients. However, these funds did not become available until January 1999, after AHERF's bankruptcy. Moreover, the loss of Medicaid insurance led to a rise in the uninsured's use of hospital emergency departments.

The impact of these changes on AHERF's Philadelphia hospitals was dramatic. DPW figures show that Medicaid payments to AHERF hospitals dropped from \$177 million in 1994 to \$153 million in 1995, \$138 million in 1996, and to only \$114 million by 1997. These payments include reimbursements for direct patient care and supplemental disproportionate share (DSH) payments, but not payments to hospitals from Medicaid HMOs. While the Health Choices program did shift Medicaid patients into HMOs, the bulk of the decline in AHERF payments had occurred by the end of 1996 before the program was in full swing. These Medicaid reimbursements accounted for nearly twenty (20) percent of the total revenues at some AHERF hospitals. AHERF's Eastern Pennsylvania Psychiatric Institute (EPPI) in Philadelphia was especially affected by the cuts in the general assistance population, since the facility treated psychiatric and substance abuse cases. Across the AHERF system, Medicaid reimbursements accounted for ten percent of revenues. The drop in Medicaid payments between 1994-1996 from \$177 million to \$138 million represented a 22% decline overall, and perhaps as much as 2 percent of AHERF's total revenues (estimated at \$1.9 billion). In addition, a Pennsylvania House Democratic Appropriations Committee analysis suggested that the medical assistance cuts made in 1997 resulted in a 2.7 percent decline in net patient

revenues for AHERF's hospitals in the Delaware Valley, and a 1.25 percent cut in AHERF's hospitals in Western Pennsylvania.

The final change at the State level was the demise of CON at the end of 1996. This led to an influx of new competitors for the most profitable hospital service lines (e.g., cardiology). Most of the new competitors were suburban community hospitals, which opened up cardiac services to retain patients in their local communities rather than refer them to downtown Philadelphia AMCs, such as Hahnemann or MCP Hospital.

In sum, by the end of 1996 and the beginning of 1997, Philadelphia hospitals had suffered several negative shocks. Medicaid transitioned all of its beneficiaries to mandatory managed care plans. Pennsylvania cut the welfare rolls and thus the hospital's Medicaid patient base. Pennsylvania also let the CON program sunset, thereby increasing hospital competition for the most profitable service lines. Finally, the Medicaid program cut the annual update by 5 percent.

Changes in Private Health Insurance Market

During this same period, the two largest insurers in the market -- Independence Blue Cross (IBC) and U.S. Healthcare (USHC) -- began to dramatically increase their managed care enrollment. The shift from indemnity to managed care dealt two blows to hospitals: they experienced a higher volume of patients reimbursed at steadily lower rates.

Originally known as HMO of Pennsylvania, USHC was the first HMO in the country to shift from nonprofit to for-profit status. USHC went aggressively after the enrollees in competitors' indemnity plans, such as IBC. It offered providers 80% of their fees, which providers accepted for several reasons: some viewed it as marginal cost business, others didn't want to get left out of the growing trend in managed care. In the late 1980s and early 1990s, USHC terminated the contracts for two hospitals (MCP Hospital, Pennsylvania Hospital) that didn't agree to its lower rates. This sent a strong message that hospitals need the HMOs more than the HMOs need the hospitals: indeed, USHC reportedly accounted for 25% of Pennsylvania Hospital's business. Because physicians had separate contracts with USHC, the contract disputes led the physicians to admit their patients to other hospitals. Both hospitals came back to USHC and signed at

severely reduced rates. Around 1994, USHC launched another strategy to tie primary care physicians to it more closely with "right of first refusal" contracts. Approximately 240 PCPs were thus aligned with USHC. This made it even more difficult for providers to cancel USHC contracts, because community-based PCPs might be aligned with the payer more than the provider. USHC's total HMO enrollment in the metropolitan area skyrocketed from 640,000 in 1994 to 817,000 by 1996.

IBC had developed traditionally as an indemnity plan. During the 1980s, IBC reportedly lost 300,000 enrollees to new HMO plans in the market, such as USHC. In the late 1980s, it began discounting payments to providers, in response to USHC's growth. This was another cause of the weakening hospital margins in the latter part of the decade. IBC also hired former USHC executives to develop their own managed care plans. In 1991, IBC negotiated a joint-venture with an existing HMO formed four years earlier by Pennsylvania Blue Shield. IBC folded the HMO, known as Keystone Health Plan East (KHPE), into two smaller HMOs it owned, resulting in a combined membership of 297,000. Enrollment in IBC's managed care plans swelled to 471,000 by 1993 (including 145,000 Medicaid enrollees). Nevertheless, as of 1993, roughly 80% of IBC's enrollment was still in indemnity plans. Moreover, IBC's rates were higher than USHC's rates. IBC was forced to compete with USHC's growth by moving further into managed care.

IBC pursued several strategies here. First, IBC sought to break up the collective bargaining on hospital rates that had historically been conducted every four years with the Delaware Valley Hospital Council. When the 1988-1992 contracts expired, IBC sought to negotiate with individual hospitals and get a lower price. Hospitals balked at this move, since they relied on IBC's higher rates to offset the lower rates they were granting USHC's managed care product. IBC pursued a "Prudent Buyer" strategy whereby hospitals would have to promise IBC their best (lowest) rate if IBC had a majority of the market share of that provider's business. This would allow IBC to extract low provider rates on its full range of products - - and extract rates from providers reportedly lower than USHC's HMO product - - because of Blue Cross's 70+ years of historical coverage in the State and IBC's overall share of the Philadelphia market. To get hospitals to join, IBC followed a classic "divide and conquer" strategy in which it

promised higher rates to the first prominent hospital that signed an individual agreement, and then pressured hospitals that joined later to accept lower rates (e.g., the longer you wait to join, the lower the rates you will receive, and the more share you will lose to the hospital that has already agreed). The effect was to break up the hospital contracting cartel and to extract lower, competitive rates from hospitals. The lower rates on its range of insurance products allowed IBC to rapidly expand its managed care book of business.

IBC continued to expand into the Medicaid managed care business. In 1995, IBC formed another 50-50 joint venture with Mercy Health Plan to combine their Medicaid HMOs to contract with the State's Health Choices program. IBC also began to transition more of its enrollees from indemnity plans to its HMO plan (Keystone/Blue Cross) and PPO plan ("Personal Choice"). Enrollment in the former jumped from 564,000 to 666,000.

As with the Medicaid program, hospitals now witnessed more of their commercial patients coming from managed care plans paying lower rates than previously. According to AHERF's CEO, these enrollment shifts and payment decreases at both USHC and IBC/KHPE led to a 10 percent decline in the weighted average payment per case at AHERF hospitals.

The market competition between USHC and IBC resulted in a steady "ratcheting down" of rates paid to providers in the Philadelphia market. This ratcheting down in provider payments was paralleled (and likely caused) by a ratcheting down of the premiums paid by employers to HMOs. Nationwide, the premiums charged by health insurers grew at lower and lower rates during the period 1991-1996.

This decline in the rate of increase is encapsulated in the "insurance underwriting cycle". During the downward side of this cycle, insurers voluntarily reduced their premiums (or the rate of increase in their premiums) in order to appeal to customers and increase their market share; during the upward side of this cycle - - which ran from 1997-2003, insurers increased their premiums (or the rate of increase in premiums) in order to make up for the losses sustained during the prior period. This cycle and the pricing competition between the market's two big insurers had an enormous impact on AHERF. At the same time that the market's two big insurers dropped their levels of reimbursement to hospitals, AHERF engaged in its massive expansion and diversification program. The

strategies of the insurers, however, "insured" that AHERF would not earn enough revenue to support its own strategies. AHERF was thus exposed and over-extended when the underwriting cycle hit its nadir.

The underwriting cycle is also tied to another shock that hit the nationwide managed care marketplace. HMOs reached their peak market share in the commercial insurance market in 1996, the nadir in healthcare premiums. However, while HMOs may have reduced healthcare spending and premiums for employers, it achieved some of its success by restricting patient access to providers and imposing other annoying utilization controls. The resulting "managed care backlash", combined with a full employment market, led employers to offer less restrictive managed care plans to their employees. After 1996, the dominant form of managed care switched from the HMO to the PPO plan, which allowed more freedom of provider choice. This spelled doom for capitated contracts and closed provider networks - - which had been a hallmark of AHERF's system building efforts throughout the 1990s. As employers and health plans shifted away from HMOs to more "open access" products like PPOs, AHERF's network of PCPs became less important for securing managed care contracts.

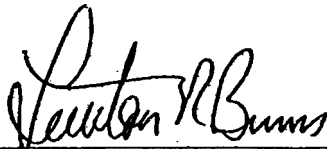
Summary: Hitting the "Reverse Trifecta"

In summary, the early and middle 1990s witnessed massive and sudden changes in reimbursement from the three biggest payers: Medicare, Medicaid, and commercial insurers. Many of these changes were tied to the shift in payer strategy from fee-for-service to managed care. For hospitals, the result was the same: care for a large volume of their patients was now reimbursed at much lower rates. Reflecting back on these changes, AHERF's spokesman stated that the system had "hit the trifecta", a gambling term for picking the top three finishers in a horserace; in actuality, AHERF hit the reverse trifecta - - picking the top three losers. Given that all three major payers had done the same thing during roughly the same period, hospitals had no recourse of cost-shifting to other payers.

To be sure, these changes affected all hospitals, not just AHERF. Why was AHERF in particular disadvantaged by these changes? First, as noted above, AHERF had engaged in a much more extensive strategy of diversification than its rivals, leaving it

huge needs for cash flow to keep everything operating and leaving it over-extended and critically vulnerable to changes in revenue. Second, AHERF had a relatively large volume of Medicaid patients given its operation of AMCs and its location in some less well-off areas of the city, leaving it particularly vulnerable to Medicaid. Third, AHERF exercised little financial discipline and restraint in its acquisitions and other strategic decisions. AHERF had acquired poor performing hospitals that historically earned low or negative margins on their operations, and thus could not well tolerate the declining reimbursement. It also entered bad capitated contracts that left it holding huge downside risk, and relied on quirks in Medicare reimbursement on depreciation to justify some of its later hospital additions. Fourth, the acquisitions brought AHERF too much debt that it was unable to service given the system's other capital needs and downward pressures on revenues.

The facts suggest that a combination (or interaction) of internal factors and external factors precipitated the AHERF bankruptcy. The internal factors were largely chronic financial weakness and volatility; the external factors were market shocks to the reimbursement and regulatory system. The internal difficulties were well established and in place by 1996; the external shocks crescendoed in 1996, when AHERF was over-extended and critically vulnerable to any changes in the system.



Lawton R. Burns

11-8-04

Date

EXHIBIT 1

Curriculum Vitae

Lawton R. Burns



CURRICULUM VITAE (10/14/04)

LAWTON R. BURNS

Office Address:

Department of Health Care Systems
The Wharton School
University of Pennsylvania
3641 Locust Walk
Philadelphia, PA 19104-6218
215-898-3711
BurnsL@wharton.upenn.edu
<http://hcmg.wharton.upenn.edu>

HONORS AND FELLOWSHIPS

2003	Elected to Board of Institute of Medicine (IOM) – Health Services Section
2002	Paul A. Gross Distinguished Leadership Lecture, Virginia Commonwealth University
2001	Election to Life Fellow, Clare Hall, University of Cambridge
2001	Arthur Andersen Distinguished Visiting Professor, Judge Institute of Management Studies, University of Cambridge
2000	Invited Lecture Series, National University of Singapore (NUS)
1999	James Joo-Jin Kim Professorship (Endowed Chair)
1999	Teacher of the Year, Administrative Medicine Program, University of Wisconsin School of Medicine
1997	Invited Lecture Series. Catholic University of Rome, LUISS, and the National Agency for Health Care Services (Italy).
1992-1993	Edwin L. Crosby Memorial Fellowship, Hospital Research and Educational Trust, Chicago IL.
1990-1991	Udall Fellowship in Public Policy, Udall Center for Studies in Public Policy, University of Arizona.
1982-1984	Graduate Training Fellowship, Kaiser Family Foundation and the Graduate School of Business, University of Chicago.

HONORS AND FELLOWSHIPS - Continued

1981-1982	Post-Doctoral Research Fellowship, Graduate School of Business, University of Chicago.
1979-1980	Doctoral Research Fellowship, Kaiser Family Foundation and the Graduate School of Business, University of Chicago.
1979-1980	Doctoral Research Fellowship, National Health Care Management Center, University of Pennsylvania.
1975-1976	Ernest W. Burgess Fellowship, Department of Sociology, University of Chicago.

EDUCATION

1984	MBA	Graduate School of Business, University of Chicago, Chicago, Illinois. Specialization in Hospital Administration & Marketing.
1981	Ph.D.	Sociology, University of Chicago, Chicago, Illinois. <ul style="list-style-type: none">- Dissertation: "The Adoption and Diffusion of Decentralized Management in Hospitals."- Committee: James Coleman, Edward Laumann, Charles Bidwell
1976	M.A.	Sociology, University of Chicago, Chicago, Illinois.
1973	B.A.	Sociology and Anthropology, <u>cum laude</u> , Haverford College, Haverford, Pennsylvania.

MAJOR FIELDS OF INTEREST

- Health Care Management
- Integrated Health Care
- Strategic Alliances
- Strategic Management
- Formal Organizations
- Evaluation Research

POSITIONS

2001	Arthur Andersen Distinguished Visiting Professor, Judge Institute of Management Studies, University of Cambridge
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POSITIONS - Continued

1999-Present	James Joo-Jin Kim Professor, University of Pennsylvania
1999-Present	Director, Wharton Center for Health Management and Economics
1998-Present	Professor of Health Care Systems, The Wharton School
1997-2001	Visiting Professor, Department of Preventive Medicine, University of Wisconsin Medical School
1996-2000	Director of Research, Leonard Davis Institute of Health Economics University of Pennsylvania
1994-1998	Associate Professor of Health Care Systems, The Wharton School, University of Pennsylvania, Philadelphia PA (Tenured).
1992-1994	Associate Professor, College of Business and Public Administration, University of Arizona, Tucson, Arizona. Joint Appointments in Management & Policy, Public Administration & Policy, Psychology.
1985-1991	Assistant Professor, College of Business, Univ. of Arizona.
1983-1984	Administrative Practicum, Jackson Park Hospital, Chicago, Illinois.
1983	Assistant to the Administrator, Medical Plaza Hospital, Ft Worth.
1981-1984	Lecturer in Health Administration, Graduate School of Business, University of Chicago.
1981-1982	Post-Doctoral Fellow, Graduate School of Business, Univ of Chicago.

GRANTS AWARDED

2004-2006	National Science Foundation. "Inventory and Distribution in Integrated Delivery Networks." Co-Principal Investigator. Award: \$200,000.
2004-2006	Robert Wood Johnson Foundation, HCFO Initiative. "Co- Evolution in HMO and Hospital Markets." (With Robert Town)

GRANTS AWARDED – Continued

2003-2004	IBM Global Services. "Trend in the Pharmaceutical Outsourcing Market." Award: \$50,000
2000-2001	Robert Wood Johnson Investigator Award in Health Policy Research. "Implementing and Sustaining Fundamental Change in Health Care Organizations." (With Gloria Bazzoli). Award: \$250,000
1999-2001	"Wharton Program on Pharmaceutical Policy, Economics, and Management." Research Grant from Merck. Award: \$200,000.
1998-2000	"Hospital Ownership Conversions." Robert Wood Johnson Foundation. Award: \$349,000. (Co-Investigator; PI: Frank Sloan)).
1998-99	"Provision of Community Benefits among FAHS Member Hospitals." Federation of American Health Systems. Award: \$120,000. (Co-Investigator; PI: Mark Pauly).
1998-2000	"Impact of Hospital Consolidation on Supplier-Provider Contracting: Value Chain Analysis." Center for Health Management Research. Award: \$183,000. (Principal Investigator).
1996-1999	"Aligning Physician Groups and Health Systems." National Science Foundation and Center for Organized Delivery Systems. Award: \$840,000. (Co-Investigator; PI: Steve Shortell). Analyze success factors in strategic alliances between integrated delivery systems and physician group practices.
1996-1999	"Referrals to Specialists in HMOs". Agency for Health Care Policy & Research (AHCPR). Award: \$250,000. (Co-Investigator). Measure rates and types of referrals in large midwestern HMO.
1996-1997	"Physician-Organization Arrangements: Impact on Integration and Managed Care." Robert Wood Johnson Foundation. Award: \$232,394. (Co-Principal Investigator). Assess impact of integrated delivery systems on primary care and managed care infrastructure in hospitals.
1995-1997	"HMO Impact on Integrated Networks and Services." Grant from Agency for Health Care Policy & Research. Award: \$288,157 (Principal Investigator). Assess impact of HMO prevalence and penetration on development of integrated systems in local markets.

GRANTS AWARDED - Continued

1995-1997	"Managed Care and Hospital-Physician Integration." Grant from Agency for Health Care Policy & Research. Award: \$313,482 (Co- Investigator). Assess impact of managed care on specific mechanisms used by hospitals to integrate their medical staffs.
1994-1997	"Managing Uncertainty to Promote Self-Help in Breast Cancer." Grant from National Cancer Institute. Award: \$990,000. (Co-Investigator). Evaluation of efficacy of nursing intervention to promote self-care and self-help in treatment for breast cancer.
1993-1995	"A Comprehensive Evaluation of Physician-Hospital Arrangements." Grant from the Industry/University Cooperative Research Center for Health Management. Award: \$200,000. (Co-Investigator). Evaluation of physician-hospital networks forming in response to managed competition and managed care contracting.
1991-1992	"Impact of State Subsidies for Liability Insurance on the Delivery of Obstetrical Care by Rural Physicians." Grant from Office for Rural Health Policy, Health Resources & Services Administration (USPHS). Award: \$ 6,000. (Principal Investigator). Evaluation of impact of stipend award and stipend amount on decisions by rural physicians to continue obstetrical practice.
1990-1993	"Interdisciplinary Training for Rural Health Action." Grant from Bureau of Health Professions. Award: \$891,000. Department of Family and Community Medicine, College of Medicine, University of Arizona. (Faculty Trainer).
1990-1991	"Structure and Outcomes of Joint-Venture Relationships Between Physicians and Hospitals." Grant from Health Care Management and Technology Assessment Center, University of Arizona. Award: \$ 6,700. (Principal Investigator). Survey of joint ventures between Arizona physicians & hospitals and their impact on utilization of hospitals.
1989-1991	"Nursing Interventions Promoting Self-Help to Cancer." Grant from the National Cancer Institute. Award: \$1.2 million. College of Nursing, University of Arizona. (Co-Investigator). Experimental Design to study the clinical- and cost-effectiveness of three nursing interventions to improve self-care knowledge and behaviors among 360 women with breast cancer.

RESEARCH CONTRACTS

2004	"Buyer-Supplier Contracting." Funded by Johnson & Johnson Health Care Systems.
2004	"Models of Physician Choice Among Implants." Funded by DePuy.
2003-2004	"Analysis of the Pharmaceutical Outsourcing Industry." Funded by IBM Global Health Care.
2000	"Using Network Analysis to Understand Change in Local Healthcare Markets." Funded by Center for Studying Health System Change. (With Douglas Wholey)
1998-1999	"The Rise and Fall of AHERF: Lessons for Academic Medical Centers." Funded by Association of Professors of Medicine.
1995-1997	"Development of Integrated Delivery Systems in Illinois." Funded by Illinois Hospital and Health Systems Association. State-wide study of integrated system development in community and academic medical centers. With Institute of Medicine.
1997	"Impact of Physician Practice Management Companies on Hospital-Based Integrated Delivery Systems." Center for Health Management Research. With James C. Robinson.
1992-1993	"Physicians' Decisions Concerning Resource Allocation by Hospitals." Funded by Tucson Medical Center, Tucson AZ. County-wide study of physician estimates regarding the areas to which hospitals should allocate their scarce resources.
1992	"Patient Care Restructuring Project." Funded by University Medical Center, Tucson AZ. Evaluation of new personnel roles on inpatient units to relieve nurses of nonprofessional tasks and improve patient management.
1992	"Decentralization of the Veterans Administration Hospital System." Funded by the VA Medical Center, Boston, MA. Study to develop models for the decentralized operation of the VA hospital system. Reviewer.
1991-1992	"Clinical and Cost Outcomes of Nurse Case Management in a Medicare HMO Setting." Funded by Carondelet-St. Mary's Hospital/Health System, Tucson AZ.

RESEARCH CONTRACTS - Continued

1989-1990 "Access and Quality of Care Outcomes in Medicaid HMOs." Funded by Joint Commission on Accreditation of Healthcare Organizations. Analysis of the adherence of Medicaid HMOs to JCAHO accreditation criteria.

PUBLICATIONS**Books**

Lawton R. Burns. The Business of Healthcare Innovation. (Cambridge, UK: Cambridge University Press, 2005)

Rosemary Stevens, Charles Rosenberg, and Lawton R. Burns (Eds.), Health Care History and Policy in the United States. (Berkeley: University of California Press, 2005)

Lawton R. Burns & Wharton School Colleagues. The Health Care Value Chain: Producers, Purchasers, and Providers. (San Francisco: Jossey-Bass, 2002).

Articles/Book Chapters

- 2005 Lawton R. Burns and Alexandra Burns. "Policy Implications of Hospital System Failures: The Allegheny Bankruptcy." In Stevens, Rosenberg, and Burns (Eds.), History and Health Policy in the United States. (Berkeley: University of California Press, 2005)
- 2004 Gloria Bazzoli, Linda Dynan, Lawton R. Burns, Clarence Yap. "Two Decades of Organizational Change in Health Care: What Have We Learned?" Medical Care Research & Review (Forthcoming).
- 2004 Douglas R. Wholey, Jon B. Christianson, Debra Draper, Cara Lesser, and Lawton R. Burns. "Understanding the Response of Local Communities to Entry by National Healthcare Firms: The Importance of Social and Economic Embeddedness." Journal of Health and Social Behavior. Forthcoming.
- 2003 Lawton R. Burns, Thomas D'Aunno, and John Kimberly. "Globalization in Healthcare." In H. Gatignon and J. Kimberly (Eds.), The Alliance on Globalizing: Drivers, Consequences, and Implications. Forthcoming.
- 2003 Lawton R. Burns. "Physician-Hospital Organizations." Encyclopedia of Health Care Management (2003)
- 2003 Lawton R. Burns. "Networks." Encyclopedia of Health Care Management (2003)

PUBLICATIONS - Articles/Book Chapters – Continued

- 2002 Lawton R. Burns and Mark V. Pauly. "Integrated Delivery Networks (IDNs): A Detour on the Road to Integrated Healthcare?" Health Affairs 21(4): 128-143.
- 2002 Lawton R. Burns. "Competitive Strategy." In Daniel Albert (Ed.), A Physician's Guide to Healthcare Management. (Malden, MA: Blackwell Science). Pp. 46-56.
- 2002 Grace Kreulen, Manfred Stommel, Barbara Gutek, Lawton R. Burns, Carrie Braden. "Utility of Retrospective Pretest Ratings of Patient Satisfaction with Health Status." Research in Nursing and Health 25: 233-241.
- 2002 Peter Budetti, Stephen M. Shortell, Teresa Waters, Jeffrey Alexander, Lawton R. Burns, et al. "Physicians and Health System Integration: Public and Private Policies Push Them Together and Drive Them Apart." Health Affairs 21(1): 203-210.
- 2002 Douglas R. Wholey and Lawton R. Burns. "Understanding Health Care Markets: Actors, Products, and Relations." Paper prepared for Center for Studying Health System Change. Forthcoming in Stephen Mick (Ed.), Innovation in Health Care Delivery. 2nd Edition.
- 2001 Lawton R. Burns, Jeffrey Alexander, Stephen M. Shortell et al. "Physician Commitment to Organized Delivery Systems." Medical Care 39(7): 19-29. July Supplement.
- 2001 Jeffrey Alexander, Teresa Waters, Lawton R. Burns et al. "The Ties that Bind: Organizational Linkages and Physician-System Alignment." Medical Care 39(7): 130-45. July Supplement.
- 2001 Stephen M. Shortell, James Zazzali, Lawton R. Burns et al. "Implementing Evidence-Based Medicine: The Role of Market Pressures, Compensation Incentives and Culture in Physician Organizations." Medical Care 39(7): 162-78. July Supplement.
- 2001 Stephen M. Shortell, Jeffrey Alexander, Lawton R. Burns et al. "Physician-System Alignment: Introductory Overview." Medical Care 39(7): 11-18. July Supplement.
- 2001 Robin Gillies, Howard Zuckerman, Lawton R. Burns, Stephen M. Shortell, et al. "Physician-System Relationships: Stumbling Blocks and Promising Practices." Medical Care 39(7): 192-106. July Supplement.

PUBLICATIONS - Articles/Book Chapters - Continued

- 2001 Jeffrey Alexander, Teresa Waters, Shawn Boykin, Lawton R. Burns et al. "Risk Assumption and Physician Alignment with Health Care Organizations" Medical Care 39(7): I 46-61. July Supplement.
- 2001 Teresa Waters, Peter Budetti, Katherine Reynolds, Robin Gillies, Howard Zuckerman, Jeffrey Alexander, Lawton R. Burns, and Stephen Shortell. "Factors Associated with Physician Involvement in Care Management." Medical Care 39(7): I 79-91. July Supplement.
- 2001 Lawton R. Burns, Stephen Walston, Jeffrey Alexander, Howard Zuckerman, Ronald Andersen, and Paul Torrens. "Just How Integrated are Integrated Delivery Systems? Results from a National Survey". Health Care Management Review 26(1): 22-41.
- 2001 Stephen Walston, John R. Kimberly, and Lawton R. Burns. "Institutional and Economic Influences on the Adoption and Extensiveness of Managerial Innovation in Hospitals: The Case of Reengineering." Medical Care Research & Review 58(2): 194-228.
- 2001 Jeffrey Alexander, Lawton R. Burns, Michael Morrissey, and Victoria Johnson. "CEO Perceptions of Competition and Strategic Response in Hospital Markets." Medical Care Research & Review 58(2): 162-193.
- 2001 Lawton R. Burns and Darrell P. Thorpe. "Why Provider-Sponsored Health Plans Don't Work." Healthcare Financial Management : 2001 Resource Guide, pp. 12-16.
- 2000 Sean Nicholson, Mark V. Pauly, Lawton R. Burns, Agnieszka Baumritter, and David Asch. "Measuring Community Benefits Provided by For-Profit and Nonprofit Hospitals." Health Affairs 19(6): 168-177.
- 2000 Lawton R. Burns. "A Research Agenda for Health Services Management." Health Care Management Review 25(4): 85-87.
- 2000 Craig Holm and Lawton R. Burns. "The Future of Health System - Physician Integration." Journal of Healthcare Management 45(6): 356-358.
- 2000 Lawton R. Burns, Gloria Bazzoli, Linda Dynan, and Douglas Wholey. "Impact of HMO Market Structure on Physician-Hospital Strategic Alliances." Health Services Research 35(1): 101-132.

PUBLICATIONS - Articles/Book Chapters - Continued

- 2000 Lawton R. Burns, John Cacciamani, James Clement, and Welman Aquino. "The Fall of the House of AHERF: The Allegheny Bankruptcy." Paper presented to Association of Professors of Medicine (Pasadena, February). Health Affairs 19(1): 7-41.
- 2000 Edward Zajac, Thomas D'Aunno, and Lawton R. Burns. "Managing Strategic Alliances." in Health Care Management: Organization Design and Behavior 4th Edition. (Albany, NY: Delmar). Pp. 307-329.
- 2000 Douglas R. Wholey and Lawton R. Burns. "Tides of Change: The Evolution of Managed Care in the United States." In Handbook of Medical Sociology 5th Edition, Ed. By Chloe Bird, Peter Conrad, and Allen Fremont. (Upper Saddle River, NJ: Prentice Hall). Pp. 217-237.
- 2000 Lawton R. Burns, and Douglas R. Wholey. "Responding to a Consolidating Healthcare System: Options for Physician Organizations." In Advances in Health Care Management Volume 1: 273-335. (New York: Elsevier).
- 2000 Gloria Bazzoli, Linda Dynan, Lawton R. Burns, and Richard Lindrooth. "Is Provider Capitation Working? Effects on Physician-Hospital Integration and Costs of Care." Medical Care 38(3): 311-324.
- 2000 Jeffrey Alexander, Thomas Vaughn, and Lawton R. Burns. "The Effects of Structure, Strategy, and Market Conditions on the Operating Practices of Physician-Organization Arrangements." Health Services Management Research 13:1-15.
- 2000 Gloria Bazzoli, Linda Dynan, and Lawton R. Burns. "Capitated Contracting of Integrated Health Provider Organizations." Inquiry 36(4): 426-444.
- 2000 Gloria Bazzoli, Linda Dynan, and Lawton R. Burns. "Capitated Contracting Roles and Relationships in Health Care." Journal of Healthcare Management 45(3): 170-187.
- 2000 Stephen Walston, Lawton R. Burns, and John Kimberly. "Does Reengineering Really Work? An Examination of the Context and Outcomes of Hospital Reengineering Initiatives." Health Services Research 34(6): 1363-1388.
- 1999 Lawton R. Burns, Robert DeGraaff, and Harbir Singh. "Acquisition of Physician Group Practices by For-Profit and Not-for-Profit Organizations." Quarterly Review of Economics and Finance 39(4): 465-490.

PUBLICATIONS - Articles/Book Chapters - Continued

- 1999 Lawton R. Burns, Kevin Anbari, and Jasmin Patel. "The Physician Practice Management Industry: A Partner for Pharmaceutical Companies In Clinical Trials?" Spectrum: Health Care Delivery and Economics.
- 1999 Michael Morrissey, Jeffrey Alexander, Lawton R. Burns, and Victoria Johnson. "The Effects of Managed Care on Physician and Clinical Integration in Hospitals." Medical Care 37(4): 350-361.
- 1999 Lawton R. Burns. "Polarity Management: The Key Challenge for Integrated Health Systems." Journal of Healthcare Management 44(1): 14-33.
- 1999 Lawton R. Burns, Terry Connolly, and Robert DeGraaff. "The Impact of Physicians' Perceptions of Malpractice and Adaptive Changes on Intention to Cease Obstetrical Practice." Journal of Rural Health 15(2): 134-146.
- 1998 Douglas R. Wholey, Lawton R. Burns, and Risa Lavizzo-Mourey. "Managed Care and the Delivery of Primary Care to the Elderly." Health Services Research Part II, 33(2): 322-353.
- 1998 Lawton R. Burns, Michael Morrissey, Jeffrey Alexander, and Victoria Johnson. "Managed Care and Processes to Integrate Physicians/Hospitals." Health Care Management Review 23(4): 70-80.
- 1998 Linda Dynan, Gloria Bazzoli, and Lawton R. Burns. "Assessing the Extent of Operational and Financial Integration Achieved Through Physician-Hospital Arrangements." Journal of Healthcare Management 43(3): 242-262.
- 1998 Howard Zuckerman, Diana Hilberman, Ronald Andersen, Jeffrey Alexander, Lawton R. Burns, and Paul Torrens. "Physicians and Organizations: Strange Bedfellows or a Marriage Made in Heaven?" Frontiers of Health Services Management 14(3): 3-34.
- 1998 Jeffrey Alexander, Michael Morrissey, Lawton R. Burns, and Victoria Johnson. "Physician and Clinical Integration in Rural Hospitals." Journal of Rural Health 14(4): 312-326.
- 1998 Lawton R. Burns, Stephen M. Shortell, and Ronald M. Andersen. "Does Familiarity Breed Contentment? The Effects of Physician-Hospital Integration." Research in the Sociology of Health Care (Greenwich, CT: JAI Press). Pp. 85-110.
- 1997 Lawton R. Burns and James C. Robinson. "Physician Practice Management Companies: Implications for Hospital-Based Integrated Delivery Systems." Frontiers of Health Services Management 14(2): 3-35.

PUBLICATIONS - Articles/Book Chapters - Continued

- 1997 Lawton R. Burns, Gloria Bazzoli, Linda Dynan, and Douglas Wholey. "Managed Care, Market Stages, and Integrated Delivery Systems: Is There a Relationship?" Health Affairs 16(6): 204-218.
- 1997 Lawton R. Burns. "Physician Practice Management Companies." Health Care Management Review 22(4):32-46.
- 1997 Lawrence Van Horn, Lawton R. Burns, and Douglas R. Wholey. "The Impact of Physician Involvement in Managed Care on Efficient Use of Hospital Resources." Medical Care 35(9): 873-889.
- 1997 Lawton R. Burns, Jill Egan, and Susan Van Duyne. The Process of Physician-System Integration In Illinois. (Naperville, IL: Illinois Hospital & HealthSystem Association).
- 1997 Lawton R. Burns and Darrell P. Thorpe. "Physician-Hospital Organizations: Strategy, Structure, and Conduct." In R. Conners (Ed.), Integrating the Practice of Medicine. Chicago, IL: American Hospital Association Publishing Co. Pp. 351-371.
- 1996 Michael A. Morrissey, Jeffrey A. Alexander, Lawton R. Burns, and Victoria A. Johnson. "Managed Care and Physician-Hospital Integration." Health Affairs 15(4): 62-73.
- 1996 Jeffrey Alexander, Thomas Vaughn, Lawton R. Burns et al. "Organizational Approaches to Integrated Healthcare Delivery: A Taxonomic Analysis of Physician-Organization Arrangements." Medical Care Research and Review. 53(1):71-93.
- 1996 Jeffrey Alexander, Lawton R. Burns, Howard Zuckerman et al. "An Exploratory Analysis of Market-based Physician-Organization Arrangements." Hospital and Health Services Administration 41(3): 311-329.
- 1996 Stacie Geller, Lawton R. Burns, and David Brailer. "The Impact of Non-Clinical Factors on Practice Variations: The Case of Hysterectomies." Health Services Research 30(6): 729-750.
- 1996 Lawton R. Burns, Gerri S. Lamb, and Douglas R. Wholey. "Impact of Integrated Community Nursing Services on Hospital Utilization and Costs in a Medicare Risk Plan." Inquiry 33(1): 30-41.
- 1996 Stephen Walston, John Kimberly, and Lawton Burns. "Owned Vertical Integration and Health Care: Promise and Performance." Health Care Management Review 21(1): 83-92.

PUBLICATIONS - Articles/Book Chapters - Continued

- 1995 Lawton R. Burns. "Medical Organization Structures that Promote Quality and Efficiency: Past Research and Future Considerations." Quality Management in Health Care 3(4): 10-18.
- 1995 Lawton R. Burns and Darrell P. Thorpe. "Managed Care and Integrated Healthcare." Health Care Management: Managed Care. Ed. by Harvey Jolt. Philadelphia, PA: Hanley & Belfus. Pp. 101-108.
- 1995 Lee R. Beach and Lawton R. Burns. "The Service Quality Improvement Strategy (QIS): Identifying Priorities for Change." International Journal of Service Industry Management 6(5): 5-15.
- 1995 Lawton R. Burns, Stacie Geller, and Douglas Wholey. "The Effect of Physician Factors on the Cesarean Section Decision." Medical Care, 33(4): 365-382.
- 1994 Lawton R. Burns, Jon Chilingirian, and Douglas Wholey. "The Effect of Physician Practice Organization on Efficient Utilization of Hospital Resources." Health Services Research, 29(5): 583-603.
- 1994 Lawton R. Burns and Lee Sechrest. "Key Challenges Posed by the Clinton Healthcare Reform Proposal." Health Care Management: U.S. Healthcare in Transition. Ed. by Harvey Jolt. Philadelphia, PA: Hanley & Belfus, Pp. 81-90.
- 1994 Lawton R. Burns and Lee R. Beach. "The Quality Improvement Strategy (QIS): A Method for Tying Quality Improvement to Physician Satisfaction with Hospital Services." Health Care Management Review. 19(2): 21-31.
- 1994 Lawton R. Burns. "Network Models of the Dissemination of Innovations and Information." Effective Dissemination of Clinical and Health Information, Edited by Lee Sechrest, Everett Rogers, et al. Rockville, MD: Agency for Health Care Policy & Research, Pp. 153-158.
- 1993 Lawton R. Burns and Douglas R. Wholey. "Adoption and Abandonment of Matrix Management Programs: Effects of Organizational Characteristics and Interorganizational Networks." Academy of Management Journal, 36(1): 106-138.
- 1993 Lawton R. Burns, Douglas R. Wholey, and Marty O. Abeln. "Using Managed Care to Mainstream the Poor: Hospital Utilization and Mortality Levels for Patients in the Arizona Health Care Cost Containment System." Inquiry, 30(2): 142-156.
- 1993 Lawton R. Burns, Ronald M. Andersen, and Stephen M. Shortell.

- "Trends in Hospital/Physician Relationships." Health Affairs 12(3), 213-223.
- 1993 Douglas R. Wholey and Lawton R. Burns. "Organizational Transitions: Form Changes by Health Maintenance Organizations." Research in the Sociology of Organizations, Samuel Bacharach (ed.), Greenwich, CN: JAI Press, pp. 257-293.
- 1993 Lawton R. Burns. 1991 Medical Staff Survey Report. Division of Medical Affairs. Chicago, IL: American Hospital Association.
- 1993 Lawton R. Burns and Darrell P. Thorpe. "Trends and Models in Physician-Hospital Organization." Health Care Management Review, 18(4): 7-20.
- 1993 Lawton R. Burns. Physician-Hospital Relations: Bibliography Drawn from the Academic and Trade Literatures. Chicago, IL: Hospital Research & Educational Trust.
- 1993 Lawton R. Burns, Jon Chilingerian, and Douglas R. Wholey. "Factors Affecting Physician Efficiency in Managing Hospitalized Patients." In M. Malek (Ed.), Strategic Issues in Health Care Management. Chichester: John Wiley, Pp. 211-228.
- 1993 Linda D. MacKeigan, Lon N. Larson, JoLaine R. Drugalis, J. Lyle Bootman, and Lawton R. Burns. "Time Preference for Health Gains Versus Health Losses." PharmacoEconomics, 3(5): 374-386.
- 1992 Lawton R. Burns et al. "The Use of Continuous Quality Improvement Methods in the Dissemination of Medical Practice Guidelines." Quality Review Bulletin Vol. 18(12):434-439.
- 1992 Lawton R. Burns and Douglas R. Wholey. "Conditional Choice Models for Hospital Care: The Effect of Physician, Patient, and Hospital Characteristics." Journal of Health Economics, Vol. 11: 43-62.
- 1992 Lawton R. Burns and Douglas R. Wholey. "Factors Affecting Physician Loyalty and Exit: A Longitudinal Analysis of Physician-Hospital Relationships." Health Services Research, Vol. 27(1): 1-24.

PUBLICATIONS - Articles/Book Chapters - Continued

- 1991 Lawton R. Burns, Denise Hurtado, and Leila Shehab. "Hospitals' Investment and Return from Volunteer Departments and Auxiliaries: Evidence from One Community." Health Care Management Review, Vol. 16(4): 79-89.
- 1991 Douglas R. Wholey and Lawton R. Burns. "Convenience and Independence: Do Physicians Strike a Balance in Their Admitting Decisions?" Journal of Health and Social Behavior, Vol. 32(3): 254-272.
- 1991 Lawton R. Burns and Douglas R. Wholey. "Differences in Access and Quality of Care Across HMO Types." Health Services Management Research Vol. 4 (1): 32-45.
- 1991 Lawton R. Burns and Douglas R. Wholey. "The Effects of Patient, Physician, and Hospital Characteristics on Length of Stay and Mortality." Medical Care Vol. 29 (3): 251-271.
- 1990 Lawton R. Burns, Ronald M. Andersen, and Stephen M. Shortell. "The Effect of Hospital Control Strategies on Physician Satisfaction and Hospital-Physician Conflict." Health Services Research Vol. 25 (3): 527-560.
- 1990 Lawton R. Burns. "The Transformation of the American Hospital: From Community Institution Towards Business Enterprise." In Craig Calhoun (Ed.) Comparative Social Research, Vol. 12: Business Institutions. JAI Press. 77-112.
- 1989 Lawton R. Burns. "Matrix Management in Hospitals: Testing Theories of Matrix Structure and Development." Administrative Science Quarterly Vol. 34 (3): 349-368.
- 1989 Lawton R. Burns, Ronald M. Andersen, and Stephen M. Shortell. "The Impact of Corporate Structures on Physician Inclusion and Participation." Medical Care Vol. 27 (11): 967-982.
- 1989 Lawton R. Burns, Douglas R. Wholey, and John Huonker. "Physician Use of Hospitals: Effects of Physician, Patient, and Hospital Characteristics." Health Services Management Research, Vol. 2 (3): 191-203.
- 1987 Lawton R. Burns and Selwyn Becker. "Leadership and Managership," in Stephen Shortell and Arnold Kaluzny (eds.), Health Care Management: A Text in Organizational Theory and Behavior, 2nd Edition, John Wiley & Sons, pp. 147-186.

PUBLICATIONS - Articles/Book Chapters - Continued

- 1986 Lawton R. Burns. "Hospital-Medical Staff Tensions: An Historical Overview and Analysis," Medical Practice Management, Vol. 1 (3): 191-198.
- 1986 Lawton R. Burns, Ronald M. Anderson, and Stephen M. Shortell. "Evidence on Changing Hospital-Physician Relationships," in Cost Containment and Physician Autonomy: Implications for Quality Care, George Bugbee Symposium on Hospital Affairs, Graduate School of Business, University of Chicago, pp. 122-142.
- 1985 Lawton R. Burns. "A Framework to Measure the Impact of Hospital-Sponsored Primary Care on Patient Access." In Hospital-Physician Sponsored Primary Care: Marketing and Impact, by Lu Ann Aday, Ronald M. Anderson, et al. Ann Arbor, Michigan: Health Administration Press, pp. 20-34.
- 1983 Lawton R. Burns and Selwyn Becker. "Leadership and Decision Making," in Stephen Shortell and Arnold Kaluzny, (eds.), Health Care Management: A Text in Organizational Theory and Behavior, John Wiley & Sons, pp. 128-166.
- 1982 Lawton R. Burns. "Diffusion of Unit Management Among United States Hospitals," Hospital and Health Services Administration, Vol. 27 (2): 43-57.
- 1980 Lawton R. Burns. "The Chicago School and the Study of Organization-Environment Relations." Journal of the History of the Behavioral Sciences, Vol. 16: 342-358.
- 1977 Kenneth E. Friend and Lawton R. Burns. "Sources of Variation in Job Satisfaction: Job Size Effects in a Sample of the U.S. Labor Force." Personnel Psychology, Vol. 30 (Winter): 589-605.

Book Reviews

- 2002 Mergers of Teaching Hospitals in Boston, New York, and Northern California by John Kastor. Health Affairs 21(1): 266.
- 1992 Medicare's New Hospital Payment System: Is It Working? by Louise Russell, American Political Science Review.
- 1992 Purchasing Power in Health: Business, The State, and Health Care Politics by Linda Bergthold, American Political Science Review. 86(2): 524-525.
- 1988 All Organizations are Public by Barry Bozeman, Contemporary Sociology (September).

- 1986 Consumerism in Medicine by Marie Haug and Bebe Lavin, American Journal of Sociology (January). pp. 1004-1007.

Wall Street Reports

- 1997 Salomon Brothers PPM Perspectives Series - Wharton Professor Interview.
New York: Salomon Brothers.

Case Studies

- 1997 Multispecialty Practice Plan at Academic Medical Center.

RESEARCH UNDER REVIEW & CURRENT MANUSCRIPTS

Articles Under Submission or Revision

Lawton Burns, Gilbert Gimm, and Sean Nicholson. "Investment and Return from Integrated Delivery Networks."

Robert Town, Roger Feldman, Douglas Wholey, and Lawton Burns. 2004. "Patterns of Co-Evolution in HMO and Hospital Markets."

James Zazzali, Stephen Shortell, Jeffrey Alexander, Lawton R. Burns. "Organizational Culture and Physician Satisfaction with Group Practice: A Multilevel Model of Cultural Perception and Context." Submitted to Health Services Research.

Lawton R. Burns, David Nash, and Douglas Wholey. "Patients as a New Third Party in Physician-Hospital Relationships."

Lawton R. Burns, Gloria Bazzoli, and Linda Dynan. "Considerations and Conclusions Regarding Organizational Change."

Lawton R. Burns, Rajiv Shah, and Frank Sloan. The Impact of Governance Changes on Strategy: Results From a Study of Hospital Ownership Conversions." *Milbank Quarterly*,
Revise and resubmit.

Lawton R. Burns, Harbir Singh, Jeffrey Alexander, and Howard Zuckerman. "Make, Buy, or Ally: Impact of Governance Mode on Trading Partner Alignment."

INDUSTRY PRESENTATIONS

Palo Alto Medical Foundation (Palo Alto), July 1994
Western Network for Healthcare Education (Berkeley, CA), August 1994
Berlex Laboratories (NJ), January 1995
Main Line Health (Radnor, PA), January 1995
Medical Group Management Association, January 1995
St. Lukes Medical Center (K.C.), January 1995
Center for Physician Development, Beth Israel Hospital (Boston), May 1995
Johnson & Johnson Wharton Fellows Program, June 1995
American Healthcare Radiology Administrators (Nashville, TN), August 1995
Orthopedics in a Managed Care Environment (Scottsdale, AZ), October 1995
Massachusetts Health Data Consortium (Boston), September 1995
Berlex Laboratories (NJ), January 1996
Geisinger Medical Center (Danville, PA), January 1996
American Society of Ophthalmic Administrators, February 1996
Main Line Health (Radnor, PA), February 1996
Geisinger Medical Center (Danville, PA), May 1996
Johnson & Johnson Wharton Fellows Program, June 1996
American Society of Cataract and Refractive Surgery (Nashville), July 1996
VA/VISN 11 Task Force (An Arbor), November 1996
Health Strategy Network (Philadelphia), December 1996
American Society of Ophthalmic Administrators, January 1997
Main Line Health (Radnor, PA), February 1997
UNUM Insurance, March 1997
AHA Center for Health Care Leadership (Chicago), June 1997
Johnson & Johnson Wharton Fellows Program, June 1997
Prime Care/Merck (Staten Island), June 1997
Association of Professors of Medicine (Philadelphia), July 1997
University of Alabama Alumni of Health Administration (Fort Walton Beach), August 1997
HRET Future Focus Forum (Boston), September 1997
Illinois Hospital & Health Systems Association (Chicago), October 1997
Brazilian Social Security Cultural Institute, November 1997
Catholic University of Rome (Rome), November 1997
Italian National Agency for Health Care Services (Rome), November 1997
Memorial Health System (Springfield, IL), November 1997
Main Line Health (Radnor, PA), December 1997
American Society of Ophthalmic Administrators, January 1998
Association of Professors of Medicine (Scottsdale), February 1998
American Organization of Nurse Executives, March 1998 (San Diego)
American Society of Cataract and Refractive Surgery (Phoenix), March 1998
University of Alabama Executive Education Program for Physicians, March 1998
UNUM Insurance, March 1998
Johnson & Johnson Wharton Fellows Program, June 1998

INDUSTRY PRESENTATIONS - Continued

Riverview Medical Center (Red Bank, NJ), June 1998
 Smithkline Beecham, June 1998
 Small & Rural Hospitals Constituency Section, IHHA (Springfield, IL), September 1998
 National Association of Childrens Hospitals and Related Institutions (Houston), October 1998
 Meridian Health System (NJ), October 1998
 University of Alabama Executive Education Program for Physicians, October 1998
 Premier Health Alliance (Chicago), November 1998
 Martins Point Health Care (Portland, ME), January 1999
 Association of Professors of Medicine (Scottsdale), February 1999
 Childrens Hospital (Columbus, OH), February 1999
 Childrens Memorial Hospital (Chicago, IL), February 1999
 Christiana Care Physicians Organization (Wilmington, DE), February 1999
 Johnson & Johnson (New Brunswick, NJ), February 1999
 Martins Point Health Care (Portland, ME), February 1999
 Integrated Healthcare 2000 (Vail, CO), March 1999
 IBM Global Services (Palm Beach), April 1999
 Interurban Clinical Club (Philadelphia), April 1999
 East Coast Health Care Executive Summit (Boston), June 1999
 Johnson & Johnson Wharton Fellows Program, June 1999
 Premier Practice Management (Charlotte), June 1999
 Annual Symposium on Governing Integrated Healthcare Systems (Aspen, CO), August 1999
 University of Alabama Alumni of Health Administration (Fort Walton Beach), August 1999
 Wisconsin Health & Hospital Association Annual Convention (Lake Geneva), September 1999
 Austral University (Argentina), October 1999
 IBM Global Services (Palm Beach), October 1999
 The Global Rx Supply Chain Conference (Philadelphia), October 1999
 University of Alabama Executive Education Program for Physicians, October 1999
 The Symposium for Governing Healthcare Systems of the Future (Palm Springs), November 1999
 Annual Symposium on Governing/Managing Integrated Healthcare Systems (Naples), January 2000
 Annual Winter Symposium on Integrated Healthcare (Aspen), March 2000
 Centocor/Johnson & Johnson (Cincinnati), April 2000
 INSEAD, Seminar on Healthcare Management (Fontainebleau), May 2000
 Merck Advisory Board (Chicago), May 2000
 National Association of Childrens' Hospitals (Philadelphia), September 2000
 SmithKline Beecham (Philadelphia), September 2000
 University of Alabama Physician Leadership Institute (Birmingham), October 2000
 Johnson & Johnson Hospital Fellows Program/National University of Singapore, November 2000
 Sparrow Hospital and Health System (Lansing, MI), November 2000

INDUSTRY PRESENTATIONS - Continued

Glaxo SmithKline Industry Conference, (Raleigh, NC), May 2001
J&J Wharton CEO Program in Health Care Leadership (Philadelphia), October 2001
Johnson & Johnson Hospital Fellows Program/National University of Singapore,
November 2001
Johnson & Johnson Health System CEO Forum (Philadelphia, PA), December 2001
Ochsner Clinic Foundation (New Orleans, LA), December 2001
Chestnut Hill Health Care – Board Retreat (Philadelphia), February 2002
Glaxo SmithKline Pharmacy Leaders (Philadelphia), February 2002
Health Industry Distributors Association (Tucson, AZ), March 2002
College of Surgeons (Philadelphia), “Lessons from the Allegheny Bankruptcy,” April
2002
Center for Health Management Research (Denver), “Managing Pharmacy Costs Across
the Value Chain,” May 2002
Goldman Sachs Institutional Investors Meeting (New York City), “Improving the Health
Care Value Chain,” May 2002
Health Industry Group Purchasing Association Global Summit (Amsterdam), May 2002
Putnam Institutional Investors (Boston), “Improving the Health Care Value Chain,” May
2002
Accenture Conference on Supply Chain Excellence (London, UK), June 2002
Association for Health Services Research and Policy (Washington D.C.), June 2002
Johnson & Johnson Nurse Fellows Program, “Integrated Delivery Networks,” June 2002
American Society of Ophthalmic Administrators and American Society of Corrective and
Refractive Surgeons (ASOA/ASCRS), August 2002
Association for Health Resource and Materials Management (San Antonio), August 2002
IDN Summit (Atlanta), “Improving the Health Care Value Chain,” September 2002
UniMED (Sao Paulo), September 2002
VHA West Materials Managers Meeting, September 2002
Workshop on Antitrust in Health Care. Federal Trade Commission (Washington D.C.),
“Group Purchasing Organizations and Antitrust Implications,” September 2002
Health Industry Group Purchasing Association (Orlando), October 2002
Healthcare Marketing and Manufacturers Council (Chicago), November 2002
Johnson & Johnson Hospital Management Program (Singapore), November 2002
Premier 2002 Partnerships Meeting (Chicago), November 2002
Dade Behring (Fort Lauderdale), January 2003
Premier Governance Education Conference (Naples), January 2003
NCI Conference on Hospital Systems (Orlando), January 2003
International Pharmaceutical Wholesalers Conference (New York), February 2003
Aventis Pharmaceuticals (Philadelphia), April 2003
Inova Health Systems (Virginia), April 2003
VHA Leadership Conference (Boston), April 2003
Premier Leadership Conference (Las Vegas), May 2003
Humana (Philadelphia), June 2003
Association of Biotechnology Financial Officers (Scottsdale), June 2003
UniMed (Sao Paulo), July 2003
Dade Behring Executive Team (Philadelphia), July 2003

INDUSTRY PRESENTATIONS - Continued

Association of Healthcare Resource and Materials Managers (San Diego), August 2003
McKesson Corporation (Atlanta), August 2003
W.L. Gore & Associates (Maryland), August 2003
UNIMED (Philadelphia), September 2003
Kettering Medical Center Network (Dayton), October 2003
DePuy, November 2003
Johnson & Johnson Hospital Management Program (Singapore), November 2003
Ethicon (Somerville, NJ), January 2004
Health Industry Distributors Association (Amelia Island Plantation), March 2004
LeHigh Valley Health System (Allentown), March 2004
Heritage Valley Health System (Beaver, PA), April 2004
New England Health Care Assembly (Worcester, MA), April 2004
Ohio State Medical Society (Cincinnati), May 2004
Inova Health System (Virginia), May 2004
American Medical Association – HMSS Section (Chicago), June 2004
Johnson & Johnson Contract Excellence (Princeton), September 2004
Chesapeake General Hospital (Williamsburg), September 2004
Biosciences Forum (Philadelphia), October 2004
Cooper Heart Institute (Voorhees, NJ), October 2004
Adventist Health Care (Nemacolin, PA), October 2004

ACADEMIC DIRECTOR - EXECUTIVE EDUCATION PROGRAMS

American Society of Ophthalmic Administrators (ASOA), August 2002

Johnson & Johnson Health Care Systems, April 2003

Aventis Pharmaceuticals, January 2003, April 2003, October 2003, February 2004
Humana, June 2003

FEDERAL GOVERNMENT TESTIMONY

Senate Judiciary Committee, Subcommittee on Antitrust, Hearings on Independence Blue Cross, April 12, 2004

Federal Trade Commission: "Group Purchasing Organizations and Antitrust Implications."

Workshop on Antitrust in Health Care. Federal Trade Commission. September 9, 2002.

Federal Trade Commission: "Hospital Vertical Integration and Antitrust Implications."
Joint
FTC/DOJ Hearings on Health Care and Competition Law and Policy. April 9, 2003.

Federal Trade Commission Expert Witness, Anti-trust case on Physician-Hospital
Organizations, April-August 2004

Federal Trade Commission Expert Witness, Anti-trust case on Hospital Mergers,
October-December 2004.

PROFESSIONAL ACTIVITIES

Editorial Board:

Health Care Management Review (1992-2000). Associate Editor (1994-2000)
Health Services Research (1994-Present)
AUPHA / Health Administration Press

Governmental Research Review Committees:

Agency for Health Care Policy & Research:
Health Services Research Review Subcommittee (1994-1998)

Consulting Reviewer (Journals):

Academy of Management Journal
Administrative Science Quarterly
Inquiry
Journal of American Medical Association
Journal of Health Economics
Journal of Management Studies
Medical Care
Milbank Fund Quarterly
Social Science and Medicine
Strategic Management Journal

Consulting Reviewer (Grants):

Agency for Health Care Policy and Research (Rockville, MD)
Health Care Financing Administration (Baltimore, MD)
Robert Wood Johnson Foundation
Veterans Administration (Washington, DC)

Affiliations:

Academy of Management
American Hospital Association
Association for Health Services Research

TEACHING

Integrated Delivery Systems
Analysis of Health Systems
Comparative Health Care Management
Organizational Behavior
Health Care Strategy
Organizational Change

Seminar on the Professions
Health Care Policy
Evaluation Research
Issues in Rural Health Care
Managed Care

EXHIBIT 2

My compensation for preparing this expert witness report is based on a rate of \$600/hour.

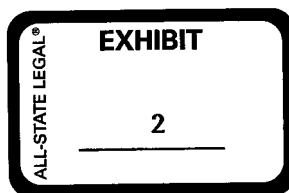
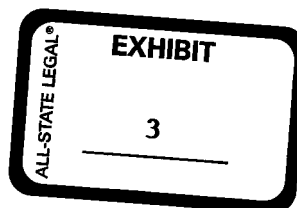


EXHIBIT 3

Data and Other Information Considered



Data and Other Information Considered

My report relies upon, of course, the accumulated knowledge I have gained during 20+ years of studying the health care industry. In preparing the Report, I considered the following data, other information, and published sources on integrated delivery systems (IDSs):

- data from the Medicare Cost Reports (1990-1998)
- data and reports from the Pennsylvania Health Care Cost Containment Council (1989-1998)
- data from the Area Resource File compiled by the Bureau of Labor Professions (1990-1998)
- data and reports from the American Hospital Association (1990-2001)
- data and reports from the American Medical Association (1990-2001)
- data and reports from the Pennsylvania Department of Public Welfare (1985-1998)
- data from the Pennsylvania Medical Society
- data files from the Center for Medicare and Medicaid Services (1990-1998)
- data and reports from the Hospital Association of Pennsylvania (1990-1998)
- data and reports from the Delaware Valley Hospital Council (1990-1999)
- reports of hospital bankruptcies published in hospital trade journals and listed on Lexus/Nexus (1980-1999)
- reports issued by the Pennsylvania Legislature (1985-1998)
- depositions (and exhibits referenced therein) from *AHERF vs. PriceWaterhouse Coopers*: Adamczak, Berman, Bland, Cancelmi, Dionisio, Gebar, Harrington, Huber, Kaye, Kline, Korman, Levy, Lisman, Martin, McGoldrick, McNair, Morrison, Moyer, Nelson, Paroo, Pavlich, Rawson, Ross, Sanzo, Schrecengost, Spargo, Turtz
- published newspaper stories on AHERF in the Pittsburgh Post Gazette and Philadelphia Inquirer (1985-1999)

- published trade articles on AHERF (1985-1999)
- articles and chapters on hospital systems in Philadelphia
- published reports on academic health centers
- data and reports from Moodys' Investors Service and Standard & Poors (1993-2001)
- reports issued by the Pew Charitable Trusts
- academic research articles on hospital financial performance
- literature on Integrated Delivery Systems:

American Medical Association (2001). *Competition in Health Insurance: A Comprehensive Study of U.S. Markets* (Chicago, IL: AMA).

Gloria Bazzoli, Linda Dynan, Clarence Yap, and Lawton Burns. 2004. "Two Decades of Organizational Change in Health Care: What Have We Learned?" *Medical Care Research & Review*

Gloria Bazzoli, Anthony LoSasso, Richard Arnould, and Madeleine Shalowitz. 2002. "Hospital Reorganization and Restructuring Achieved through Merger." *Health Care Management Review* 27 (1): 7-20.

Gloria Bazzoli, B. Chan, S. M. Shortell, and T. D'Aunno. 2000a. "The Financial Performance of Hospitals Belonging to Health Networks and Systems." *Inquiry* 37 (3): 234-252.

Gloria Bazzoli, S. M. Shortell, F. Ciliberto, P. Kralovec, and N. Dubbs. 2001. "Tracking the Changing Provider Landscape: Implications for Health Policy and Practice." *Health Affairs* 20 (6): 188-196.

Gloria Bazzoli, S. M. Shortell, N. Dubbs, C. Chan, and P. Kralovec. 1999. "A Taxonomy of Health Networks and Systems: Bringing Order out of Chaos." *Health Services Research* 33 (6): 1683-1717.

Gloria Bazzoli, Linda Dynan, and Lawton Burns. 2000. "Capitated Contracting of Integrated Health Provider Organizations." *Inquiry* 36(4): 426-444.

Lawton R. Burns and Douglas R. Wholey. 2000. "Responding to a Consolidating Healthcare System: Options for Physician Organizations." In John Blair, Myron Fottler, and Grant Savage (Eds.), *Advances in Health Care Management* – Volume 1. (New York: Elsevier): 261-323.

Lawton Burns, Harbir Singh, Jeffrey Alexander, and Howard Zuckerman. 2000. "Make, Ally, or Buy: Impact of Governance Mode on Trading Partner Alignment." Paper presented at Academy of Management Annual Meeting. Toronto, Canada: August.

Lawton Burns, Jeffrey Alexander, Stephen Shortell, Howard Zuckerman, Peter Budetti, Robin Gillies, and Teresa Waters. 2001. "Physician Commitment to Organized Delivery Systems." *Medical Care* 39(7), Physician-System Alignment Supplement, I9-I29.

Uwe Reinhardt. 2000. "The Rise and Fall of the Physician Practice management Industry." *Health Affairs* 19(1): 42-55.

Salomon Brothers. 1997. *Salomon Brothers PPM Perspectives Series - Wharton Professor Interview*. New York: Salomon Brothers. (September 18th).

Stephen Shortell. 1988. "The Evolution of Hospital Systems: Unfulfilled Promises and Self-Fulfilling Prophecies." *Medical Care Review* 45(2): 177-214.

Stephen Shortell, Robin Gillies, David Anderson, Karen Erickson, and John Mitchell. 1996. *Remaking Health Care in America* (San Francisco: Jossey-Bass).

V.T. Sinay. 1998. "Pre- and Post-Merger Investigation of Hospital Mergers." *Eastern Economic Journal* 24 (1): 83-97

Heather Spang, Gloria Bazzoli, and Richard Arnould. 2001. "Hospital Mergers and Savings for Consumers: Exploring New Evidence." *Health Affairs* 20 (4): 150-158.

Stephen Walston, John Kimberly, and Lawton Burns. 1996. "Owned Vertical Integration and Health Care: Promise and Performance." *Health Care Management Review* 21(1): 83-92.

Thomas Wan, A. Ma, and B. Lin. 2001. "Integration and the Performance of Healthcare Networks." *International Journal of Integrated Care* 1 (3):

Thomas Wan, B. Lin, and A. Ma. 2002. "Integration Mechanisms and Hospital Efficiency in Integrated Delivery Systems." *Journal of Medical Systems* 26 (2): 127-143.

Wang, B. B., T. H. Wan, J. Clement, and J. Begun. 2001. "Managed Care, Vertical Integration Strategies, and Hospital Performance." *Health Care Management Science* 4 (3): 181-191.

Teresa Waters, Peter Budetti, Katherine Reynolds, Robin Gillies, Howard Zuckerman, Jeffrey Alexander, Lawton Burns, and Stephen Shortell. 2001. "Factors Associated with Physician Involvement in Care Management." *Medical Care* 39(7), Physician-System Alignment Supplement, 179-191.

Jack Zwanziger and Cathleen Mooney. 2001. "Has Price Competition Changed Hospital Behavior in New York State?" Unpublished manuscript.

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF PENNSYLVANIA

THE OFFICIAL COMMITTEE OF
UNSECURED CREDITORS OF
ALLEGHENY HEALTH, EDUCATION
AND RESEARCH FOUNDATION

Plaintiff

vs.

PRICEWATERHOUSECOOPERS, LLP

Defendant

Civil Action No. 00-684
Judge David Stewart Cercone

Report of Robert A. Dickinson

I. Introduction and Summary

This report contains the professional opinions of Robert A. Dickinson of BDC Advisors, LLC ("BDC") on behalf of Defendant PricewaterhouseCoopers LLP ("Defendant") in connection with the above-referenced action brought by The Official Committee of Unsecured Creditors of Allegheny Health, Education and Research Foundation ("Creditors Committee"). BDC has been engaged to render professional opinions concerning (1) an evaluation of the feasibility of the turnaround plan offered by Plaintiff's expert witness Thomas W. Singleton, and the likelihood of success of any turnaround plan, and (2) an evaluation of the sale process of AHERF-East assets¹ (the "AHERF assets") and the impact of such actions on the decline in the sale price of the AHERF assets. This report is issued as of November 8, 2004.

¹ For purposes of this report, the term "AHERF assets" shall be deemed to include those facilities or operations in the AHERF health system that filed for bankruptcy protection on July 21, 1998. These involve a number of AHERF's operating affiliates in Philadelphia including Allegheny Hospitals, Centennial (City Hospital, Parkview, and Graduate Hospital), Allegheny University Hospitals-East (St. Christopher's Hospital for Children, Hahnemann Hospital, Elkins Park Hospital, Buck County Hospital, Medical College of Pennsylvania Hospital), Allegheny University of the Health Sciences, and Allegheny Medical Practices (previously known as the Allegheny Integrated Health Group or "AIHG") in addition to AHERF.

II. Professional Information and Qualifications

I am the Managing Director of BDC Advisors, LLC and have been with the firm since 1992. As part of the analyses performed in connection with this engagement, I worked with several consultants and advisors in the firm, all of whom worked under my direction. All of the opinions presented in this report are based upon my analysis of information available to me, my experience, education, and expertise as a healthcare consultant, as well as based upon my review of the deposition transcripts and exhibits of persons who directly participated in the sale of the Allegheny Health, Education and Research Foundation ("AHERF") assets.

Based on over 15 years of experience, I have a broad range of senior management consulting experience in the areas of strategic consulting and healthcare operations for academic medical centers, healthcare delivery systems, children's hospitals, physician organizations, and health plans. I have included my Professional Biography as Exhibit 1. As part of my professional activities, I have worked in the area of providing advice for financially-troubled healthcare providers and have had responsibility for the design and development of turnaround plans that have resulted in improved business operations. I have included an outline of relevant client projects as Exhibit 2.

I received a Master of Business Administration from the Harvard Business School where I graduated with honors, and received a Bachelor of Arts with departmental honors from Stanford University. I have been featured as a keynote speaker at over twenty national healthcare conferences, and have published or been cited in over twenty-four articles in national healthcare publications. I am also an expert contributor to the Health Care Advisory Board, The Leadership Institute, and The Governance Institute. I have included a bibliography of my publications and conference presentations as Exhibit 3.

III. Opinion Summary

Opinion 1. Having reviewed data regarding the Philadelphia market environment, the position of the DVOG hospitals, the Singleton Report, and my own analysis of turnaround opportunities for DVOG, it is my opinion that a turnaround plan for DVOG executed beginning at the end of 1996 would have been unlikely to succeed. It is also my opinion that the Singleton Report does not present a feasible plan for the financial stability of the AUHS, AUH DVOG hospitals, and AIHG entities because: (1) it does not provide for sufficient improvement in operating earnings, and (2) it fails to provide adequate cash flow to achieve a position of solvency (i.e., where assets exceed liabilities).

Opinion 2. It is my opinion that (1) the process for the sale of the AHERF assets was mismanaged by AHERF and its financial advisors, and (2) this mismanagement, during the period of January to November 1998, had a direct and adverse impact on the sale price paid by Tenet in November, 1998 for the AHERF assets.

IV. Opinion 1. The Turnaround Plan as Submitted by Plaintiff's Expert is Not Feasible, and it is Unlikely that Any Turnaround Plan Would Have Been Successful.

I have been asked to evaluate whether the turnaround plan prepared by Thomas W. Singleton (the "Singleton Report") could have restored Allegheny University of the Health Sciences ("AUHS"), the AHERF-East Delaware Valley Obligated Group hospitals ("DVOG"), and the Allegheny Integrated Healthcare Group physician organization ("AIHG"), to a position of financial stability. In his expert report, Mr. Singleton defines financial stability as:

"that the DVOG entities, could, within three to four years, have been restored to a position of positive earnings before interest, taxes, depreciation and amortization (EBITDA), sufficient to allow AHERF's Board to sell the entities without creditor loss."²

By financial stability, I mean that the DVOG entities, including AUHS and AIHG, could have been restored to a position of positive EBITDA sufficient at a minimum to cover capital requirements and debt service requirements. The question of whether a financially stable enterprise would sell at a price sufficient to avoid creditor loss could depend on a number of variables, including the level of hospital profitability, the amount of creditor claims, and the overall supply and demand for hospitals. Since the Singleton Report does not make clear what amount of operating EBITDA would be required for a sale of assets without creditor loss, I do not support this extension to the definition of financial stability. It stands to reason that a financially stable hospital enterprise with positive EBITDA should sell for a higher price than the same enterprise with a negative EBITDA. It is my opinion that the DVOG entities, including AUHS and AIHG, could not have been restored to a position of positive EBITDA sufficient at a minimum to cover capital requirements and debt service requirements in fiscal years 1997 to 1999. In addition, I do not believe that Mr. Singleton has set out an adequate basis for his contention that the AHERF Board of Trustees could have sold the entities after a turnaround without creditor loss. Indeed, in light of my analysis above, I believe that result would be very unlikely. I reserve the right to respond to any additional information or analysis that the plaintiffs might present on this subject.

A. Mr. Singleton's Turnaround Plan Infeasible

My conclusion is that Mr. Singleton's Plan would not be sufficient to turnaround the DVOG hospitals. This conclusion is based on the finding of serious calculation errors and flawed assumptions as the basis for the conclusions reached in that report. In addition, Mr. Singleton does not consider the impact external market factors would have on DVOG hospital operations, and the reduction in operating revenue and increases in

² Thomas W. Singleton, Turnaround Evaluation as of September 30, 1996, Expert Report dated August 2004, p. 3.